

## ABSTRACT OF THE DISLCOSURE

Inkwells adapted for use in direct-write nanolithography and other applications including use of wells, channels, and posts. The wells can possess a geometry which matches the geometry of tips which are dipped into the inkwells. The channels can be open or closed. Hydrophilicity and hydrophobicity can be used to control ink flow. SEM can be used to characterize the inkwells. Ink flow can be monitored with video. Hydrophobic material layers can be used to prevent cross contamination. Microsyringes can be used to fill reservoirs. Satellite reservoirs can be used to prevent bubble formation.